



SPE® ANNOUNCES STUDENT SCHOLARSHIP WINNERS FOR 8TH-ANNUAL AUTOMOTIVE COMPOSITES CONFERENCE & EXHIBITION

TROY (DETROIT), MICH. – For the second year, two graduate students have been awarded scholarships in the amount of \$2,000 USD each to support new research in polymer composites with relevance to ground transportation as part of the ***SPE Automotive Composites Conference & Exhibition*** scholarship program.

Uday Sharma of **University of Michigan-Dearborn (Dearborn, Mich.)** will use his scholarship for research on ***Analysis of Thermoplastic Woven Composites at High-Strain Rates***. In explaining the scope of his project, Sharma says: “In recent years, composite materials have increasingly replaced conventional materials in aerospace, marine, civil, and automotive industries as a result of their high specific stiffness, strength, superior corrosion resistance, and low coefficient of thermal expansion. It is important to determine the properties of these composites under dynamic loading for further development in the automotive industry. The objective of the research would be the in-depth study of mechanical behavior shown by thermoplastic woven composites under high strain rates. The research will additionally investigate using a state-of-the-art, non-contact strain measurement system (ARAMIS 3D) to determine the effect of fiber angle and woven architecture on the mechanical behavior of thermoplastic woven composites.”

Tobias Potyra of **Fraunhofer Institute of Chemical Technology (Pfinztal, Germany)** will use his scholarship for work on ***New Direct Processing Technology for the Manufacture of SMC Parts (Direct-SMC)***. Discussing his project, Potyra says: “Class A exterior body panels for the automotive industry are often manufactured from sheet-molding compound (SMC). The conventional process can result in fluctuations in the quality of the semi-finished material and therefore also in component quality. Also, since it is discontinuous, it may take several days (or longer) before results of formulation changes can be determined. However, the new direct-SMC process – a continuous process where raw material is converted directly into a molded part within minutes of compounding – avoids many of the previous restrictions and makes it possible to establish a control loop in order to assure high and consistent SMC quality. As a result, both scrap and rework are reduced, improving component costs. The scientific challenges in this project are to establish an integrated process – from raw material to molded part – for SMC applications for the automotive industry. The industrial challenges are to meet automotive market requirements of fast cycle times for high-volume production and to produce high-quality material that meets performance requirements consistently.”

Last year’s student scholarship winners – Roston Elwell from Texas A&M University and Alejandro Londoño-Hurtado from University of Wisconsin-Madison – will present results of their work during the 2008 show, Sept. 16-18 at the MSU Management Education Center in Troy, Mich.

For more information about the SPE Automotive Composites Conference, visit the Composites’ Division website at www.4spe.org/communities/divisions/d39.php, or the Automotive Division’s website at www.speautomotive.com/comp.htm, or contact the group at +1.248.244.8993, or write SPE Automotive Division, 1800 Crooks Road, Suite A, Troy, MI 48084, USA. For more information on the Society of Plastics Engineers International or other SPE events, visit the SPE website at www.4spe.org, or call +1.203.775.0471.

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